2004 FINANCIAL MARKET & RETIREMENT BOARD PERFORMANCE REVIEW

Financial Market Review 2004

he year 2004 saw solid but unspectacular returns from the financial markets. Thanks to a strong fourth quarter, the stock market posted back-to-back gains for the first time since 1999. Despite Fed tightening of monetary policy, bonds enjoyed their fifth consecutive year of positive returns. While the best performing investment in 2004 would have been crude oil, whose price rose over 34%, the only sure way to lose money would have been to bet on the US dollar, whose tradeweighted value declined over 5%.

The Equity Market

With the presidential election decisively resolved and the economy showing signs of strength amid stabilized oil prices, the stock market shook off months of stagnation by rallying in November, temporarily ignoring the unsettled situation in Iraq and the lingering threat of terrorism. After the strong fourth quarter, the S&P 500 large cap index was up 10.9% for the year. The Dow Jones Wilshire 5000, the broadest measure of the market, rose 12.6% in 2004.

Despite many predictions that their run would be over, small cap stocks—by a significant margin—outperformed large caps for the sixth consecutive year. The Russell 2000 ended 2004 at an all-time high, while the S&P 500 still needed a 26% rally to recapture its previous high reached in March 2000. Midcaps also outpaced the S&P 500. Over the past five years, small caps (Russell

2000) have outperformed large caps (S&P 500) by an annualized 8.9%. The NASDAQ Composite, after rising 50% in 2003, cooled off in 2004, up only 8.6%. Some technology stocks, notably Intel, actually declined. The NASDAQ remains well below half its 2000 high.

Performance in 2004 was defined not as much by sectors as by the fortunes of individual companies. Several of the most prominent stocks in the large cap universe suffered particularly bad years in 2004, including Merck (-27.8%), Intel (-26.9%), Pfizer (-22.3%), General Motors (-21.4%), and Coca Cola (-16.2%). Others, such as McDonalds (+31.56%), Exxon Mobil (+28.1%), Johnson & Johnson (+25.2%), Boeing (+24.9%), Home Depot (+21.5%), and General Electric (+20.7%) outpaced the general market.

Also continuing a long-run trend, value outperformed growth in 2004, with the margins largest in the small cap and midcap universes. Over the past five years, value has outperformed growth by an annualized 9.5% among large caps (S&P 500/Barra) and by almost 21% among small caps (Russell 2000).

Economic growth overseas generally mirrored that of the US, but US investors enjoyed strong returns from overseas markets as a result of the declining dollar. As our current account deficit rose to 5.6% of GDP, the dollar sunk to 5-year lows against

the Euro and the yen, and to 12 and 13-year lows against the British pound and the Canadian dollar, respectively. The total return of the MSCI-EAFE Index, up 12.7% for the year in local currency terms, was up 20.2%, in US dollar terms. Oil producing countries such as Mexico and Venezuela did particularly well, and some Asia Pacific nations such as Australia, Singapore, and Hong Kong enjoyed impressive economic growth.

The Bond Market

Beginning in June, the Federal Reserve Board raised the federal funds rate five times from 1% to 2.25%. However, confounding conventional wisdom, rates on long bonds did not rise in concert. Rates on 2-year Treasury notes rose from 1.84% to 3.07% over the year but yields on the 10-year Treasury bond, which began the year at 4.26%, rose to 4.90% in June and fell below 4% in October, actually ended the year lower at 4.22%. Thus, the main effect of the Fed's actions has been a flattening of the yield curve.

The steadiness of the bond market in the face of Fed tightening reflects the fact that inflation, at around 3%, remains low and that the Fed has been basically moving to normalize short rates from their extraordinarily low levels of recent years. In addition, there was the significant purchasing of US Treasuries by foreign governments who hoped to protect their exporting industries by preventing a free-fall of the dollar.

As in the stock market, the traditionally riskier segments of the fixed income market did the best in 2004. Corporate bonds outpaced Treasuries as economic growth normalized and investors were hungry for incremental yield. At year-end, quality yield spreads were generally the narrowest since 1998. High yield "junk bonds" posted double digit returns again as their yield advantage over high grade bonds decreased

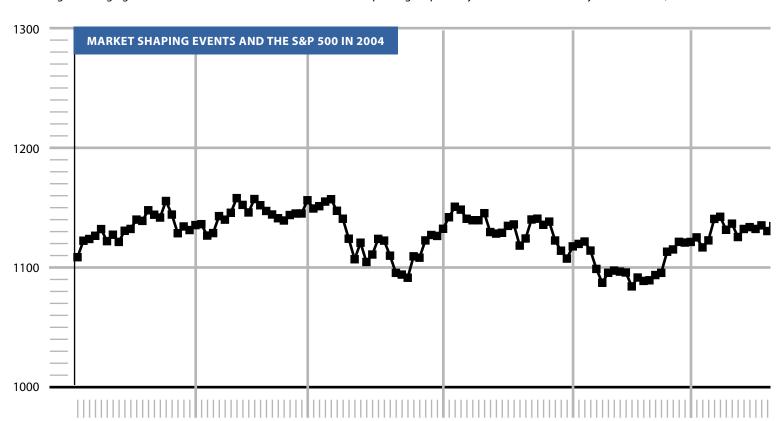
to historically narrow margins.

Other Asset Classes

Real estate continued to perform well. Publicly-traded REITs, supported by improving real estate fundamentals, a tepid stock market for most of the year, and attractive dividend yields relative to stocks, had another spectacular year, up over 30%. Returns were also improving on privately

held real estate, with the NCREIF national property index rising 14.5%.

Performance of venture capital and other segments of private equity continued to improve in 2004. Returns for the year were 19.3% for venture capital and 16.4% for all private equity, according to Venture Economics. Total venture capital investing rose after three years of decline, and it was



JANUARY

- J.P. Morgan Chase acquires Bank One for \$58 billion, forming second largest US bank.
- Stocks reach highest level since 9/11, fueled by strong corporate earnings and low interest rates.
- Amazon reports its first full-year profit.

FEBRUARY

- Patriots win Super Bowl.
- John Kerry sweeps Democratic presidential primaries

MARCH

- Bernard Ebbers, former chairman of WorldCom, is indicted for fraud
- Martha Stewart is convicted of obstruction charges.
- Terrorist train bombings in Spain help to sink stocks to lowest levels of the year.

APRIL

- Reported job growth for March reaches a 4-year high.
- Trial of Tyco executives ends in a mistrial.
- Insurgent violence increases in Iraq.

MAY

- Iraqi prison abuse scandal erupts.
- Former CS First Boston investment banker
 Frank Quattrone is convicted of interfering with a US investigation.
- Oil prices rise above \$40 for the first time in 13 years.
- First quarter economic growth was a healthy 4.4%.

JUNE

- CIA Chief
 George Tenet
 resigns.
- Former President Ronald Reagan dies.
- SEC approves rules requiring mutual fund companies to have independent chairmen.
- US hands over authority in Iraq.



JAN 2 1108.48 JAN 30 1

1135.26 **FEB 27** 1144.94



MAR 1 1155.97 MAR 31 1126.21



APR 1 1132.17 APR 30

1107.30



MAY 3 1117.49 MAY 28 1120.68



JUN 1 1121.2

JUN 30 1140.84

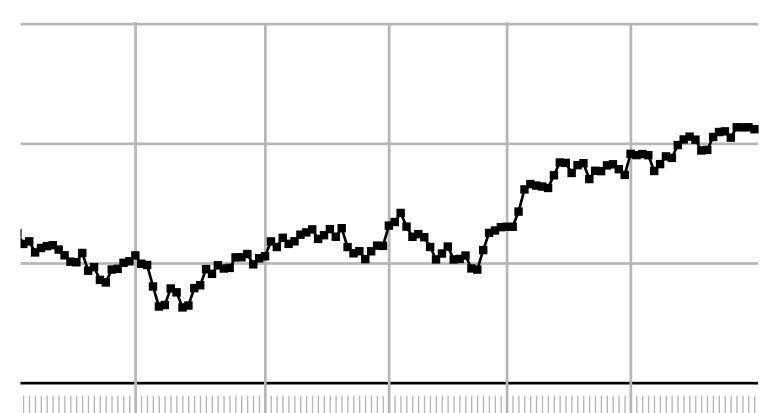
1131.13

the best year since 2000 for initial public offerings. IPO activity by venture-backed companies in 2004 exceeded the prior three years combined in terms of the value of offerings.

For hedge funds, where returns generally lagged the S&P 500 for the year, 2004 was disappointing to those who have hailed the industry as being a panacea relative

to mediocre returns in traditional markets. Nevertheless, it was also disappointing to those cynics who have predicted a rash of blow-ups or other form of meltdown for the rapidly growing hedge fund industry. Assets under management are estimated to be approaching \$1 trillion (although that is still only about one eighth the size of the mutual funds industry) and more large public pension funds have initiated

hedge fund investments. Constrained by lackluster markets, low volatility, and, in some cases, too much hedge fund money chasing the same opportunities, composite returns on all hedge fund strategies were in the range of 8-9.5% while funds of funds products generally returned between 6.5-7.5%.



JULY

- Federal Reserve raises its short-term interest rate from 1% to 1.25%
- Reported job growth for June slowed down.
- Kenneth Lay is indicted for his role in Enron collapse.
- 9/11 Commission Report is released.
- Microsoft announces huge one-time dividend, a doubled dividend rate, and a major stock buyback.
- Kerry-Edwards ticket is nominated in Boston.

AUGUST

- Oil prices continue to surge as job growth for July fell to a low for the
- Gold rises to a high for the year while stock prices fall to their lows.
- Hurricane Charley causes severe damage in Florida.

SEPTEMBER

- Bush-Cheney team is re-nominated in New York City.
- Under pressure, Michael Eisner agrees to step down as Disney CEO in two years.
- US Airways files for bankruptcy for second time.
- Hurricanes Ivan and Jeanne take a toll in the Gulf States and Florida.
- Fannie Mae is accused of widespread improper accounting practices.
- Oil prices top \$50/barrel.

OCTOBER

- Merck stock plunges after painkiller Vioxx is removed from the market.
- AT&T announces major job cuts and write-offs as it retreats from consumer market.
- Insurance giant Marsh & McLennon is accused of bid-rigging and other improprieties.
- Oil price tops \$55/ barrel
- Insurgent violence continues in Iraq.
- After 86 years of frustration and curses, Red Sox Nation finally rejoices.

NOVEMBER

- Bush wins a second term.
- Decisive election helps spur stock market rally.
- US forces move on Fallujah and Mosul insurgents.
- Yasser Arafat dies.
- K-Mart agrees to buy Sears Roebuck for \$11.5 billion.

DECEMBER

- Federal Reserve raises short-term rates for fifth time this year while longterm rates remain stable.
- SEC releases rules for regulation of hedge funds.
- US suffers a deadly attack at base near Mosul as pre-election violence continues.
- Massive under-sea earthquake spawns a tsunami that devastates south Asia.
- The dollar sinks to new lows, but stocks rise to a 3 ½ year high.



JUL 1 1128.94 JUL 30

1101.72



1106.62 **AUG 31** 1104.24



1105.91 **SEP 30** 1114.58



OCT 1 1131.5 OCT 29 1130.2



1130.51 **NOV 30** 1173.82



DEC 1 1191.37

DEC 31 1211.92

2004 Performance Review & Analysis

s of December 31, 2004, the composite asset allocation for the &4 Massachusetts local systems that invested on their own was: Domestic Equity, 43.2%; International Equity, 13.7%; Domestic Fixed Income, 26.5%; International Fixed Income, 2.5%; Real Estate, 4.8%; Alternative Investments, 1.9%; Hedge Funds, 1.2%; PRIT Core Fund, 1.5%; and Cash, 4.7%. Assets in these systems totaled \$14.5 billion. Among these 84 systems, 70 invested in international equity, 13 in international fixed income, 56 in real estate, and 36 in alternative investments. Six systems had partial investments in the PRIT Core Fund, and 23 participated in the PRIT Fund's segmentation program.

Twenty local systems with assets totaling \$1.1 billion invested entirely in the PRIT Core Fund as of year-end. The asset allocation of that \$36.0 billion fund as of December 31, 2004 was Domestic Equity, 35.1%; International Equity, 15.7%; Emerging Markets, 5.7%; Fixed Income, 15.9%; High Yield Debt, 7.3%; Alternative Investments, 5.6%; Real Estate, 6.6%; Timber, 3.6%; and Absolute Return, 4.5%.

Performance among the 104 local systems ranged between 4.3% and 14.9%. For the 84 systems that invested on their own, the median return was 11.1%. The composite median return for all 104 local systems was 11.7%.

The median return for the 20 systems that invested totally with PRIT approximated

that of the fund itself, which was 14.4%. Internal cash positions and cash flows enhanced or subtracted from the returns of individual systems relative to the PRIT Fund's basic return. The PRIT Fund's size enables it to invest in a wider range of asset classes than many of the local systems and, in 2004, the Fund's return benefited from strong performance by managers in all asset classes, but was particularly enhanced by the Fund's significant exposures to and strong performance in real estate, international equity, emerging markets, alternative investments, and timber. Its fixed income performance benefited from positions in high yield debt and TIPS (Treasury Inflation Protected Securities).

The returns reported for Massachusetts' public pension systems can be compared to the median return of the public fund universes of the following national investment consultants: New England Pension Consultants/ICC, 10.95%; Mercer, 12.5%; and TUCS (Trust Universe Comparison Service), 11.6%.

As always, the major determinants of performance among the non-PRIT systems were asset allocation and the relative performance of investment managers. Among the decisive characteristics of the best performing systems in 2004 were: asset allocation of at least 50-60% in domestic and international equity and all managers meeting or exceeding their benchmarks; within domestic equity, healthy allocations to small and midcaps; at least 10% in international equity, where returns were as high as 28%; healthy exposure to real estate, where returns from that sector among the top five systems ranged from 28-39%; and within fixed income, meaningful exposure to corporate bonds and high yield bonds along with US Treasuries.

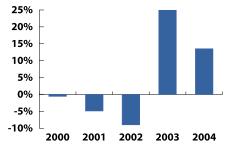
The systems with lagging performance in 2004 were all relatively small systems that invest almost entirely in domestic stocks and bonds, with little or no exposure to small caps and midcaps or international stocks, and, within fixed income, little if any exposure to lower grade and high yield corporate bonds. A system with consistently conservative asset allocation, reflecting in part a fully funded system, would be expected to lag during those typical years when stocks outperform bonds. Such was the case with some systems, but sadly, several boards did significantly worse than would be expected by their overall stock/ bond allocation because they employed only one investment manager, and that manager had exceedingly disappointing performance relative to its benchmarks.

The returns for 2004 showed once again that, just as it is important to have reasonable well-diversified asset allocation in order to dampen portfolio volatility and smooth out returns over time, it is crucial to have managers who successfully fulfill their mandates. Asset allocation goes hand in hand with the diligent selection and careful monitoring of investment managers.

COMPOSITE INVESTMENT PROFILE

2004 Return	13.53%
2004 Market Value	\$50.3B
2000-2004 Return (Annualized)	4.07%
1985-2004 Return (Annualized)	10.67%

Investment Return (2000 - 2004)



Asset Growth - Market Value (1995 - 2004)

